DOCUMENT RESUME

ED 315 010 HE 023 176

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TITLE From Student to Artist: Education in the Fine and Performing Arts: Montclair State College 1986-1989.
PUB DATE Jul 89
NOTE 28p.
PUB TYPE Reports - Evaluative/Feasibility (142) -- Reports - Research/Technical (143)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Art Activities; *Art Education; *Attitude Change; *Attitude Measures; Evaluation Methods; Higher Education; Participant Satisfaction; Program Evaluation; Qualitative Research; *Student Attitudes
IDENTIFIERS *Challenge Grants; *Montclair State College NJ

ABSTRACT

This paper describes a study which evaluated effects of Challenge Grant activities in the arts program at Montclair State College (Pennsylvania). An introductory discussion examines special problems of evaluation in the arts and provides a rationale for a humanist approach with a focus on meaning in art rather than comparison with one or more control groups. An instrument was developed using a multiple bipolar questioning technique to examine the meaning of experience for the student. The measure was tested with 10 dance and 6 chamber music students comparing retrospective pretest ratings and current posttest ratings. The measure was then used in a total of 661 testings with students involved in 32 Challenge Grant college arts activities. Differences between pretests and posttests in 180 cases were analyzed in terms of the developing identity of the student as an artist and student attitudes toward the arts at Montclair State College. Results indicated substantial changes in student perceptions of themselves as artists, of the ideal artist, and of their chosen instrument. Student perceptions of departmental instructors and of departments in the School of Fine and Performing Arts also changed significantly in a positive direction between pretest and posttest. 16 references. (DB)

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From Student to Artist: Education in the Fine and Performing Arts

Montclair State College
1986 - 1989

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List of Figures

Figure		Page
Fig. 1	The Professional Identity: Significant differences in perceptions of male and female students	15
Fig. 2	Forming the Professional Identity: Changes in perceptions	17
Fig. 3	Forming the Professional Identity: Movement toward the ideal	18
Fig. 4	Montclair State as a center for the arts: Changes in perception of the instructors	20
Fig. 5	Montclair State as a center for the arts: Changes in perceptions of the departments	21
Fig. 6	Montclair State as a center for the arts: Changes in perception of Montclair State	22

FROM STUDENT TO ARTIST: EDUCATION IN THE FINE AND PERFORMING ARTS AT MONTCLAIR STATE COLLEGE

In 1986, at the beginning of the Challenge for Excellence, a number of objectives were stated to embody the hopes and desires of the governor, the persons in this state concerned with the arts, and the wider Montclair State College community. The first was to prepare the students for entry into a professional career in the arts, and the second to promote the College as a center for excellence in the fine and performing arts. A number of additional objectives were stated which dealt with specific groups in the arts, the student body, and the general public; objectives were also prepared to guide activity toward intended impact on the college curriculum, outside arts organizations, and prospective students. These many objectives were studied and the achievement of them evaluated by a panel of experts. This evaluation reports how well the hopes embodied in the two overarching objectives were realized. Of the two primacy is given to the preparation of the students for professional entry, since this adresses whether the student becomes an artist, and expresses the final goal of education in the arts.

Decades of controversy have marked and enlightened many aspects of the process by which some of our community's children develop into artists, controversies which have swirled around scientific versus humanistic traditions, educating students for career entry, and around the epistemology underlying evaluation itself. Each had to be considered here so that an evaluation plan would emerge which would be most likely to detect occurrence

of the event of becoming an artist, if indeed it did occur.

Higher education in the arts has long been recognized as a splendid battlefield for the two cultures, science and humanism. While scientific methods gained in vigor and breadth of application, education in the arts never lacked strong and cogent voices protesting the applicability of math models to measure the becoming of an artist (e.g. Lowenfield, 1947; Gadamer, 1975. Many spokesmen like Farson (1978) refused to accept the view of the behaviorists that learning in the arts was like math learning. They insisted that learning in the arts did not simply determine behavior, nor was behavior change the sole evidence that the individual was becoming an artist.

Yet the process of dealing exclusively with observables had distinct advantages to offer. Mathematics provided models which enabled probability statements about outcomes. Generalizations about better procedures became accessible without endless idiographic study and theory extraction. Some of the purist humanist claims of the irrelevance of this procedure to the educating of artists were worn down or ignored as the statistical procedures yielded some quick and visible improvements in other educational areas.

The heart of the controversy remains. If the developing artist primarily acquires skills, views, insights, and experiences of known effect and duration, scientific measurement clearly applies. Conversely, insofar as the artist becomes artist primarily by acquiring new meanings of self, objects, and events, scientific methods can apply only if they can be phenomenological, i.e., they capture the meaning extracted by the

artist from his individual experience. As a practical matter, adoption of the scientific view requires pretesting and posttesting of designated content, skills, and comparing the students' achievement experimentally to another control or comparison condition; adoption of the humanistic view requires documentation of change in the meanings of significant objects in the students' experience, and the attribution of some part of that change to the project activities.

In recent years, the very proliferation of experimental approaches to evaluation of educational programs unearthed considerations which made evaluators wonder whether experimental methods were indeed a panacea. Program objectives vary widely in quality and ease of attainment; some are of lasting and others of ephemeral value. This observation prompted evaluators to judge programs, given the achievement of their objectives and the program's being established as the cause, on the intrinsic worthwhileness of the objectives undertaken. This seductive line of argument engendered a lasting debate among evaluators concerning who should judge the objectives themselves. Scriven represented an extreme view by assigning the task to the evaluator, while Cronbach (1980) took a more comprehensive view by requiring that sufficient information to judge the objectives themselves be provided to all identifiable audiences.

Phenomenological methods of the humanist tradition, on the other hand, target detecting any changes which can be causally attributable to elements of the process being evaluated, even when the changes are fragmentary alterations in the development

of the artist-in-training, or when their exact nature cannot be specified in advance. Since the process by which an artist comes to be an artist was not specified to most anyone's satisfaction from the earliest research and evaluation attempts in art education at the turn of the century to the present it is clear that the description of the process and its components is still in early theoretical formation. This is further attested to by the team efforts addressing this matter currently in progress (Educational Testing Service, 1987). This lack alone possibly precludes any purely experimental or objective-driven attempt to evaluate the Challenge for Excellence from detecting its most significant achievements.

Regarding actual career commencement, it can be noted that concern about the ultimate employability of students after they leave school became an identifiable educational issue around 1970 (Herr, 1975). Literally hundreds of evaluations attest the success of this learning, which includes acquiring such skills as "developing meaningful work values", "understanding private enterprize", and "self-understanding and understanding career interests and aptitudes." Short-term studies have reflected favorably on programs imparting these skills in improving employment during year-after follow-up; longer term usefulness of the skills remains unknown.

Although it could be argued that career education efforts have focused almost entirely on the K-12 school children, and may therefore be inapplicable to a college population, the more cogent consideration centers on whether the facilitating of the entry of the artist upon his professional career is at all

comparable to preparation for other types of gainful employment. This consideration overshadows even practical consdierations, including the fact that any long term follow up is beyond the scope of this present project. The very doubtful parallel between entry into an artistis career and other career entries suggests centering the evaluative focus of career preparation of the artist on the preparation of the artist as artist.

An operational resolution of these diverse views was required for evaluation to be actualized, with its attendant deciding among many possible methods, each supported by significant concerns, the particular methods which were to be employed at each point. Instead of limiting such decision-making exclusively to the realm of measurement considerations, artists, students, and administrators were interviewed at length, their discursive and artistic presentations studied, and their publications and professional activities examined for the purpose of disembedding from their many artistic activities the specific focal points to which their artistic expression was related. Students were able to articulate, with assistance, points of significant change in their lives which moved them toward the arts or their art form. Artists and instructors under the most detailed questioning communicated the experience an art work or group of works expressed. Others in the art organizations described experiences of their own which they reexperienced or saw enlightened or altered in the art work of another artist. Among professionals the focal point was meaning of experience, its expression often quite idiosyncratic. Among students the

focal point was performance, enabling their bodies or instruments to produce the artifact. It was decided that, for evaluative purposes, the creation of new meaning or the change of meaning about relevant aspects of one's experience be operationally defined as the variable which indexes the growth of a student into an artist.

The viewpoint expressed by the interviewed participants stands well within the traditional literature of the arts. The primacy accorded the extraction of or imposition of meaning upon individual experience suggests the appropriateness of a phenomenological approach to the evaluation, a position which would be supported, for example, by Dufrenne (1973). While this reference calls to mind that phenomenology is the methodology of existentialism, the appropriateness of the phenomenological method will be argued here without reference to what types or strains of existentialist thought underly the work of artists and students. Accordingly, it was decided that a phenomenological approach be used to unearth changes in meaning of relevant environmental objects to index artistic growth and, inferentially, success of the Challenge for Excellence project. The word "meaning" was used with sufficient elasticity to encompass both the "meaning" of Kreitler and Kreitler (1973) and the "type concepts" of Arnheim (1969).

Specifically, the evaluation has been designed and tested to follow the humanist tradition in omitting control-group type evaluation. Not having to identify equivalent placebo treatments for Challenge Grant activities and randomly assign students to them relieved a large administrative burden in the carrying out

of the grant: randomly assigning students to theoretically inferior studies might have proven unworkable. The cost of this decision was the loss of the power of comparison to random control for attributing causality, that is, without the random control groups it was difficult to positively assign the Challenge Grant activities as the cause of the progress the students made. The control group comparison was replaced with the following inferential provess: Significant changes in meaning were attributed to Challenge Grant activities 1) when the nature of the change was that intended for the activity; 2) when the objective of change in that sphere was stated beforehand; 3) when the change occurred temporally between pretest and posttest; 4) when participants made the attribution; and 5) when the magnitude of the change was positively related to the duration of the activity. This necessitated some considerable idiographic study in addition to use of the ordinary quantitative tools of measurments. The phenomenological methods were summarily quantified in the sense that percentages of students significantly affected in each manner could be shown.

Psychometric Methods

The yardstick for evaluation was extracted from the interviews, writings, utterances and performances of participating professional artists from both the College faculty and outside organizations a continuum of change over which student progresses to artist. The yardstick was this: students become artists by creating, developing, and expressing new meanings for significant elements of their experience.[7]

Therefore, it was meaning itself which was the object of scrutiny, and change or stasis in meaning the object measured. Meanings, which are the way individuals construe their experience, are expressed in signs, which is precisely what art does. Moreover, the medium selected by the artist for expression is arguably, when used to express, a best form of expression of the meaning of the artist.

This presented a psychometric difficulty. If a student were merely to practice use of an instrument or the tools of any media, the student would learn to create artifacts. By modifying his/her behavior from the reactions of others, in particular the teacher, the student might learn to create artifacts which people liked, or in which other persons invested meaning. But the student would not be expressing preexisting or emergent meaning and would therefore not be an artist, but would rather be like a child who has learned to pronounce words of an unknown language which are occasionally juxtaposed a certain way in the presence of those who speak that language; these persons might be deceived into believing they had heard the child's meaning expressed.

To explore meaning and measure its changes a separate set of signs were needed, ones of more typical currency whose significates are closely tied to the same signs for a great many people. Words were an obvious choice, even though they have a distinct disadvantage. As mentioned, the artifact is arguably a best expression of the artist's meaning. Here the validity of the expression was being scrutinized, and so words were employed

as a substitute capable of carrying a version of the meaning. It is not problematic if the artist has difficulty articulating his full meaning in words, but it would be suspect indeed if the artist were totally unable to find expression in words. The argument that words are totally inapplicable to the experience of the artist would contradict a sizable body of research on (non-pathological) synesthesia, showing that sensations in one sense mode regularly attach themselves to sensations from other modes. Research, for example, on the relationships of color, mood, and musical experience date back to the 1930's (e.g. Odbert, Karwoski & Eckerson, 1942). Apparently Delius' On Hearing the First Cuckoo in Spring is routinely judged green in color, while part of Wagner's Rienzi Overture is judged red (Osgood, et al, pg.21).

Since there exist a set of words in a language shared by student and evaluator, the measurement plan proceeded by assuming that there exist a set of experiences in the students' past and present of significance to the student. These experiences have necessarily been construed, if only for utilitarian purposes of managing one's behavior with respect to the stimuli presented. The meaning of an experience may not be easily articulated, but relying to a degree on synesthesia, a series of questions can be asked about an experience. The asking of questions to explore meaning relieves any lack of fluency on the part of the student, and only minimal responses would be required. Was the experience hot or cold? Was it clean or dirty? And so many such questions could be asked until, as in the game of "20 Questions", the evaluator has grasped the meaning of the experience to the student. The questions used were bi-polar with five reply

gradients between the two extremes so that the student could communicate both direction and intensity in a single response to each question.

Clearly, the effort of these many questions would be expended, in any research, only on significant concepts. Similarly, the questions posing the polar pairs would attempt to address the major ways in which meanings differ, although enough leeway has been found empirically in the choice of polar pairs that a particular selection could be regarded as a sample from an infinite domain of choices.

Design of an instrument. Several conclusions followed logically from acceptance of this procedure. First, the set of responses given by a student about an experience was multidimensional: although empirical research has shown that persons view experiences in only a few, rather consistent ways, very many dimensions are possible. Second, assuming enough polar pair questions were asked, a student responding in exactly the same direction and degree on every polar pair about two objects experienced the objects as exactly the same. Third, when a student responds differently on the polar pair questions about two objects, both degree and nature of the experienced differences are accessible statistically. Fourth, that when a student responds differently in the pattern of responses to the polar pair questions about the same object, then the student's experience of that object, i.e., its meaning to the student, has changed. Fifth, that different persons can be expected to respond with a different pattern to the same objects both because

they experience these objects differently (the objects have different meaning for them) and because they use words somewhat differently. This last brings us to sixth, the existence of a degree of random error of response, estimable by statistical methods. An instrument was authored based upon these considerations in a format which has been extensively field tested (v. listing of trials in Osgood et al, 1975; also Sullivan, 1986, 1987).

Operational testing. A pilot testing of the effectiveness of the instrument was carried out to serve as a working example of the design and provide a slight indication of direction and progress from the point of view of student change. In January of 1987 the areas of dance and chamber music were designated, small students groups identified, and testing carried out. A single session was used to gain the data, collecting retrospective pretest ratings and current posttest ratings from the students. The characteristics of retrospective data collection has been explored elsewhere (e.g. Collins, Graham, Hansen, & Anderson, 1985; Finney, 1981; Howard, Millham, Slaten, & O'Donnell, 1981); it is argued here that it afforded the students an opportunity for specific comparison of time-anchored points on objects of importance, resulting in somewhat smaller expected standard error of measurement and some amplification of change in the consciously intended direction. Attenuation of standard error would be a concern if pretest and posttest bracketed a full academic year of effort and the evaluative focus were summarily outcome-centered; here it is not of interest because assessments of error are being gauged roughly for example.

In the area of dance retrospective pretest ratings and current posttest ratings were obtained from ten students, one male and nine females who had been freshmen, sophomores and juniors during the academic year. Ratings were directed at four objects: 1) a specific (named) dancer whom they would most like to be like; 2) self as dancer; 3) dance instructor participating in the Challenge for Excellence project, in this instance Lori Katterhenry; and 4) the Montclair State College dance program. Students were then interviewed in writing about their experience with dance at Montclair and elsewhere and its relation to other aspects of their lives.

In the area of chamber music retrospective pretest ratings and current posttest ratings were obtained from six students, one male and five females who had been freshmen, sophomores and juniors during the academic year. Ratings were directed at six objects: 1) self as musician; 2) a specific (named) musician whom they would most like to be like; 3) their primary instrument; 4) Chamber music; 5) Montclair State College; and 6) the music department. Students were then interviewed in writing as to which performances they attended and whether they were participating performers in the sessions.

The number of bi-polar questions addressed to each object to be rated was twelve, and while this could theoretically represent twelve different dimensions, experience has shown that factor analysis produces three dimensions which account for the bulk of the variability in student responses. The principal factor is an evaluative one. This factor is often looked at by itself, and it

reflects the evaluative attitude of the student to each object rated at pretest and posttest times. Our phenomenological outlook did not permit prejudging whether a higher or lower evaluation of any one object were more is desirable except in the context of the other ratings and the interview. It must be noted, however, that change in attitude toward any object (significant change, that is, change beyond expected error variability in responding) is a finding because it represents change in meaning of that object to the student. The obvious exception to this is contextual devaluation of the program itself.

Looking at the evaluative factor alone, important changes occurred in all ten dance students in meanings significant to their training as artists, or, in one instance, of rethinking the advisability of continuing. Cause of change was clearly attributed to the instructor in 30% of the cases, and to the program in 60%. A look at the responses of the students exposed to a few sessions of chamber music as either audience or performers shows expectedly less effects than the greater exposure experienced by the dance students, but the brief program exposure significantly impacted 66% of these students, and identified one additional student as requiring some personal attention.

Factor analysis yields two more factors. These two are described as potency, or the perceived ability of the object to effect outcomes, and activity, or the liklihood of the object's becoming important in immediate concerns of the student. It was noted above that objects receiving identical ratings on all

scales were experienced identically by the student. As a corollary, items receiving patterns of similar or dissimilar responses are accordingly experienced as similar or dissimilar: the nature of the similarity can be seen from the distance on the dimension, and the rated distances between objects are directly interpretable. The most obvious case is the increase or decrease in distance between the rating of self-as-artist and ideal artist, but each distance is interpretable quantitatively from the scales and phenomenologically from the accompanying interview.

Preparation of individual student graphics and elaboration of the explanations which arose from these graphics were useful for student guidance or what is sometimes termed formative evaluation. Statistical handling for the evaluation of the program, however, required calculating the full matrix of interpretable three-dimensional distances among all combinations of objects rated for every subject. The percentage of students for whom these distances (which represent meanings about their personal experiences) changed beyond a statistical criterion of significance reflected the proportion of students making significant progress toward becoming artists. Where progress was made with individual students and where it was not was thus discovered, and the program judged accordingly.

Data collection. The evaluation was carried out in three phases. The first phase, lasting two semesters, consisted in contact with those imparting instruction, elaborating the underlying philosophy in measurable terms, designing an

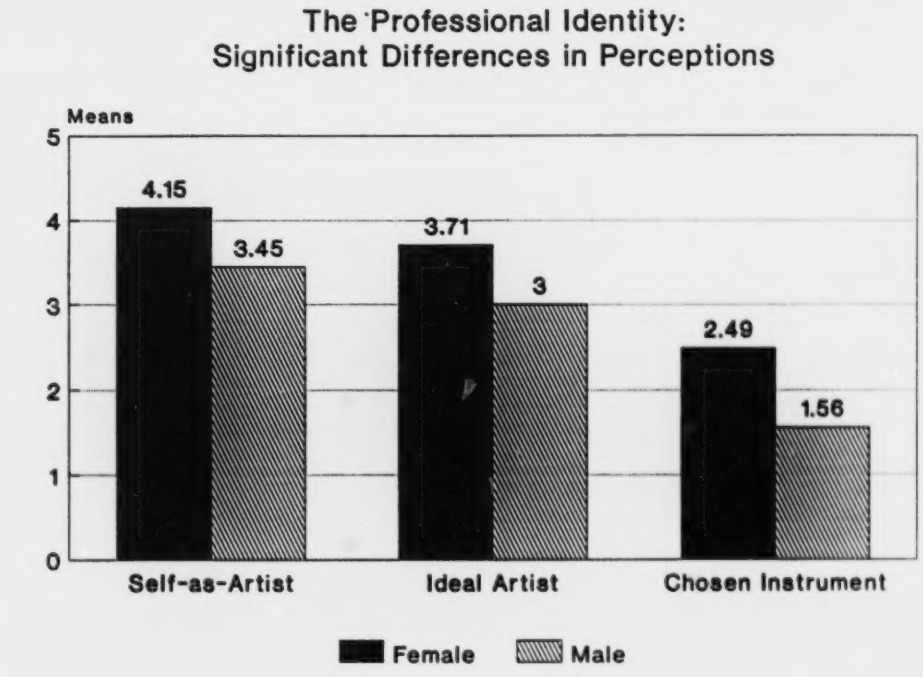

Figure 1

instrument, pilot testing the instrument, and conducting idiographic study of the initial student subjects. The second phase, lasting three semesters, involved collecting of data with the instrument from as wide a sample of Challenge Grant activities as was practical, given that the time consumed by the data collection itself had to be taken from instructional time. The third phase, lasting one semester, consisted in aggregating and analyzing the collected data and conducting follow-up interviews with students to test again whether the changes detected by the instrument reflected true phenomenological changes in the students.

Sample. On the basis of testing convenience alone, 32 activities were selected as a sample from the full domain of Challenge Grant activities from which to measure student outcomes. The number of students participating in these activities varied from 1 to 28; students who did not wish to be tested were permitted to decline. Over three semesters, this resulted in 661 valid testings. Of those tested, 444 were women, 217 men; 169 were tested as freshmen, 176 as sophomores, 136 as juniors, 96 as seniors, and 84 as ungraded: this ungraded group included both high school student participants and graduate students. The reliability of the instrument was benchmarked on these 661 testings: Cronbach's coefficient alpha, a summary indicator of measurement error, was found to be alpha = .82.

It is interesting to note that women showed consistently more positive cognitive orientations to the objects placed in the perceptual field to measure identity as artist. Figure 1 shows the average ratings on the original zero throguh five scale, contrasting men and women and illustrating that the women significantly exceed the men in their avarage, as a group, in each of the three areas.

For the purposes of showing overall program effect in a summary fashion, the 360 testings which represented matched pretest-postests of the same student within the same activity were culled for reporting. Differences between pretest and posttest were studied to find changes in identity attributable to Challenge Grant activities. In the reporting of results the actual measurements are not given; instead the percentages of students significantly improving between pretest and posttest is

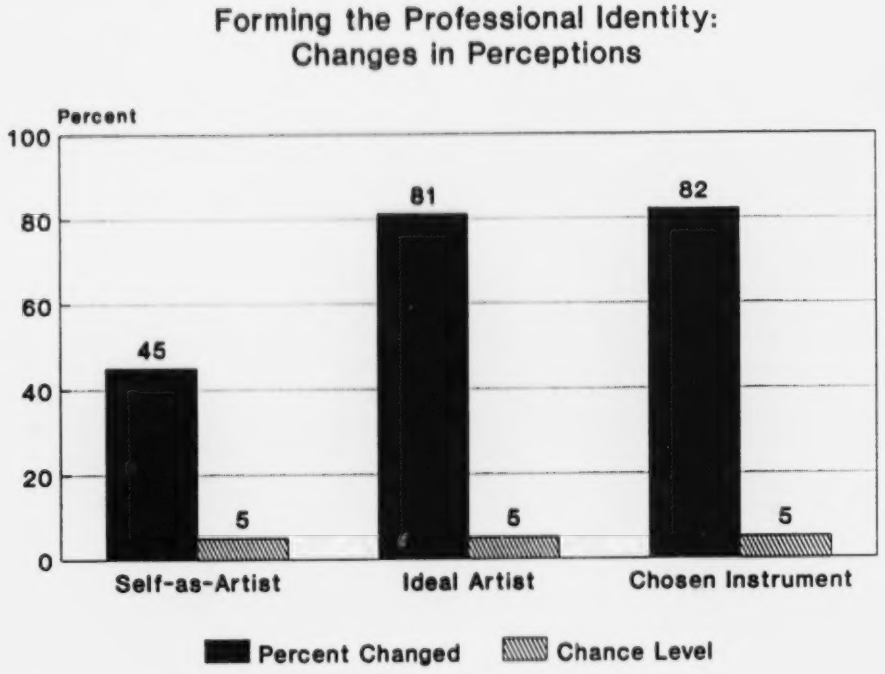

Figure 2

reported to allow a more direct appreciation of the magnitude of the impact of the Challenge Grant.

Results

The results of the data analyses are divided between the two evaluation questions addressed, first, the extent to which students were prepared for professional career entry by developing a professional identity as artist, and, second, the degree to which Montclair State College has come to be viewed as a center for the fine and performing arts.

Forming the professional identity. Figure 2 shows the

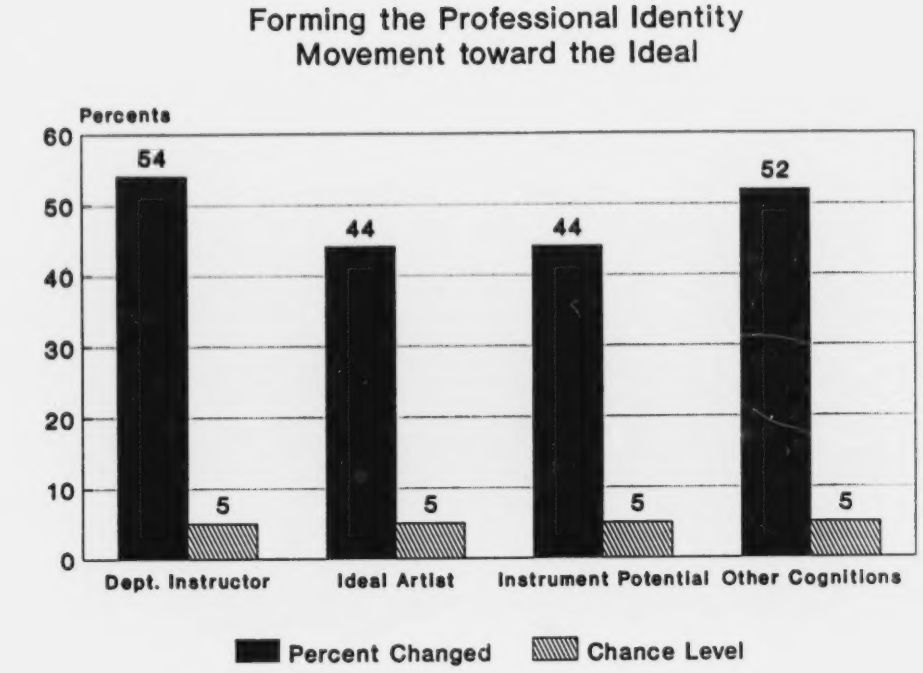

Figure 3

percentages of students who changed their perceptions significantly in three areas: 1) the perception of themselves as artist; 2) their perceptions of ideal artist in their chosen area of the fine and performing arts; 3) their perceptions of their chosen instrument. These students are those whose perceptions in each of these areas changed between pretest and posttest, and it is shown contrasted to the chance level, which reflects the number of false positives which could be expected from measurement error alone. The changes are aggregated across all 32 sampled Challenge Grant activities, and the changes are attributed to the Challenge Grant activities themselves for the

reasons stated above. The perceptions in which changes occurred were evaluative perceptions, meaning that 45% of the sample used words to show that their concepts of themselves as artist had altered by becoming significantly more positive between pretest and posttest. 81% evidenced changes in their perceptions of their ideal artist, and this 81% includes both increasing valuing and decreasing it, so long as it was significant, that is, not attributable to measurement error. 82% showed concept formation about their chosen instrument to be significantly more positive, although a few altered significanlty in the negative direction. Note that only 5% would be expected to be found changed by chance, and similar studies examining intended change on these variables report percentages in the 20% area.

Figure 3 shows the professional identity emerging in some specific thought patterns. The first bar in Figure 3 represents the percentage of sampled students who show significantly reduced distance between their experience of themselves as artists and their experience of their departmental instructor; because it is an Euclidean distance, it combines change on all three derived cognitive factors. 54% closed that distance significantly in their minds. Somewhat fewer, 44%, were able to show that they had significantty approached their ideal artist. 44% also demonstrated a significantly increased appreciation of their instrument's potential.

Montclair State as a center for the arts. Examination of the perceptions of students regarding their view of Montclair State College as a center for the fine and performing arts began

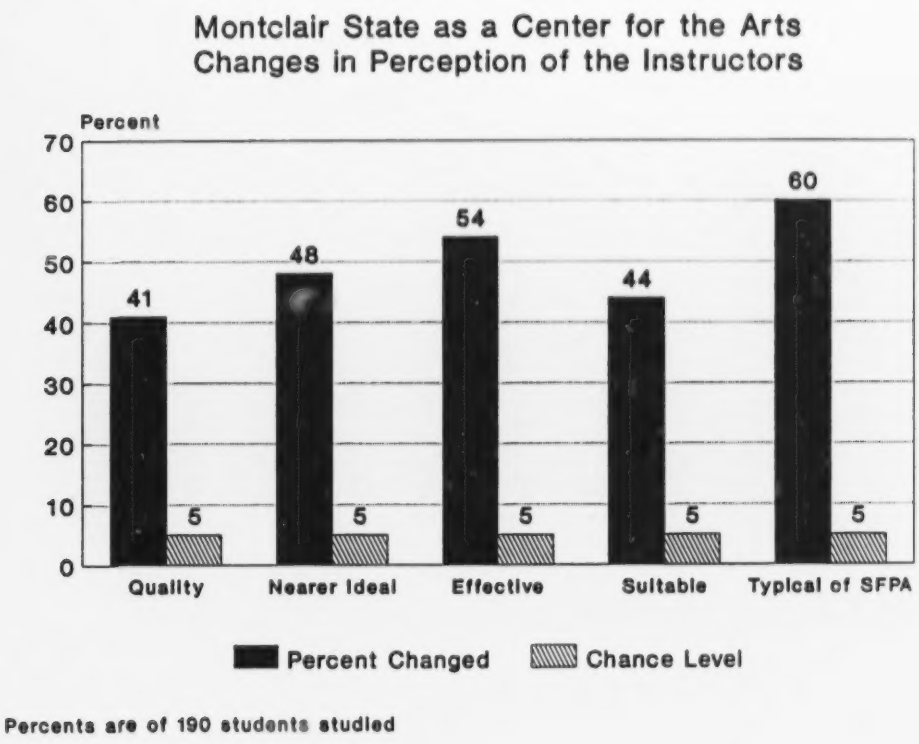

Figure 4

with a look at changes in student perceptions of those providing instruction. Figure 4 shows the percentages of students whose perceptions of their departmental instructors altered during the exposure to one Challenge Grant activity to the extent that they used words significantly differently to describe them. The measured differences showed that 41% rated the instructors more highly, 48% saw the instructors as closer to their idea of an ideal artist, 54% saw them as more effective, and 44% as more suited for them in their pursuit of excellence with their chosen artistic medium. Each of these far exceeds the chance level or the percentages of change usually obtained on variables of this

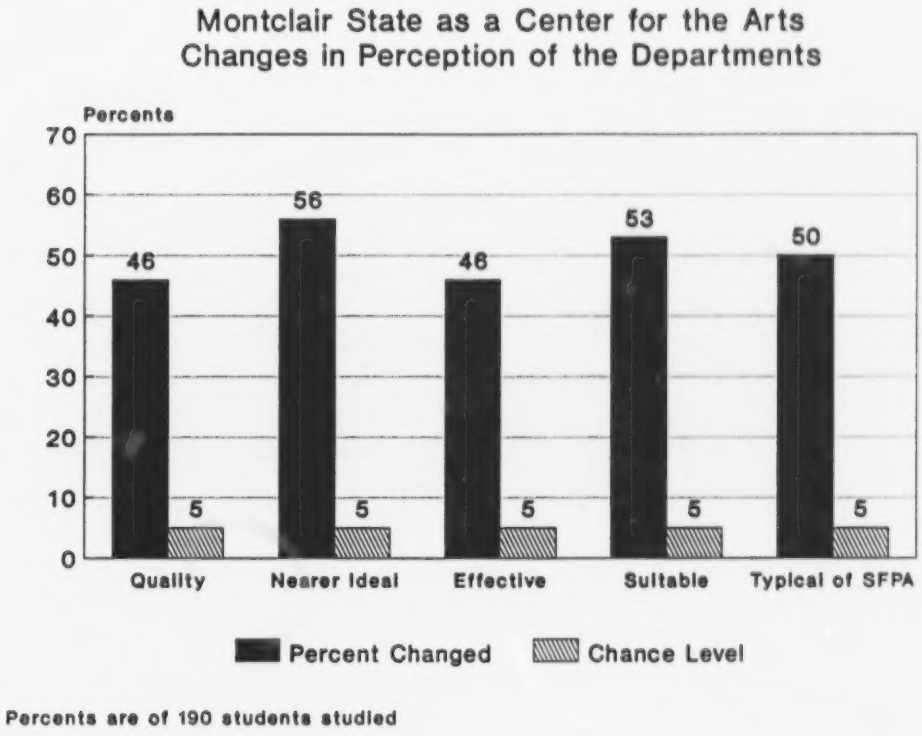

Figure 5

type. The final bar in Figure 4 shows that 60% considered the instructor they were rating to be typical of the Montclair faculty: all of this 60% had held this perception to a appreciably smaller degree before the grant activity. This last is an important link between perceptions of the instructor in the arts and perception of Montclair State as a center for the arts.

Figure 5 adds perceptions of the departments in the School of Fine and Performing Arts. Here the same cognitive mapping which was applied to the instructors, the results of which were exhibited in Figure 4, is applied to the departments. 46% rate the department as significantly higher in quality after onle one

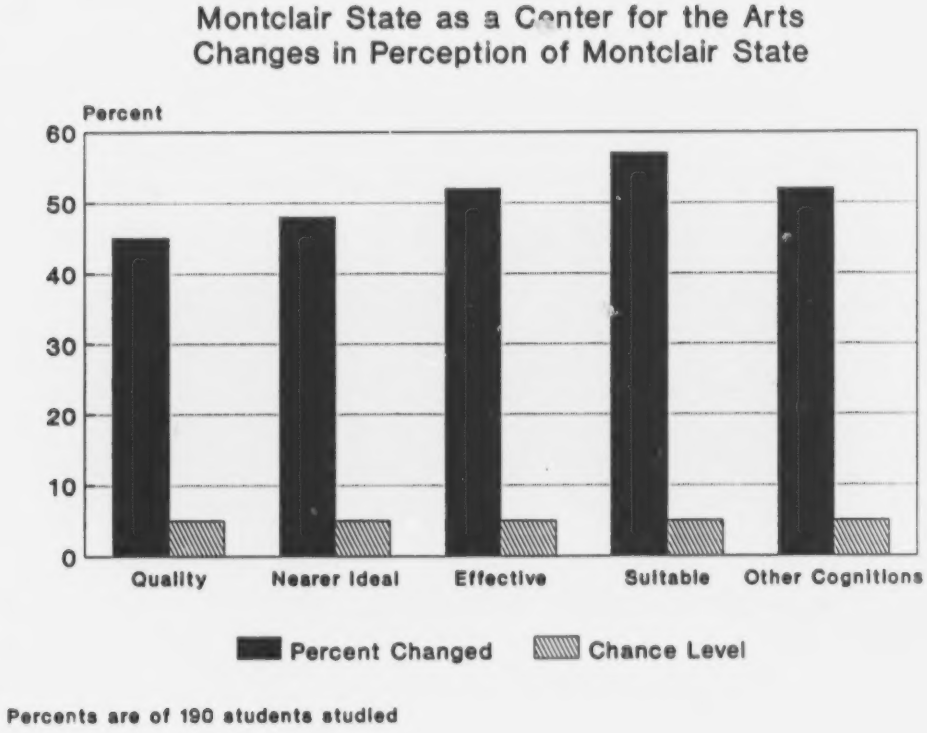

Figure 6

activity than they did before it. 56% see the department as more likely to include their ideal artist, 46% as effective, and 53% as the suitable department for one seeking excellence in their particular instrument or medium. 50% judge the department as significantly more like the rest of Montclair State School of Fine and Performing Arts after only one activity.

Finally, Figure 6 addresses the cognitions concerning the school itself as object. It is clear that more than half the sampled students exposed to only one Challenge Grant activity rated the school significantly more highly in each cognitive domain examined, most particularly in the suitability of the

school for them, as students of their particular instrument or medium.

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